Using a subset of age matched cases (N=173, means 60 yr.) and controls (N=173, means 59 yr.) between 54 and 66 years of age, the cases had significantly:

Higher homocysteine (9.7 vs. 8.7, P<0.01), and
Lower TC (179 vs. 201, p<0.0001), LDLC (107 vs. 121, p<0.001), triglyceride (140 vs. 163, p<0.05), apoA1 (112 vs. 123, p<0.01) apoB (85 vs. 96, p<0.001), and TC/HDL2b (14.8 vs. 20.2, p<0.05). These data indicate that the cases are more aggressively treated with medications than the controls.

Using a subset of age-matched cases (N=146, mean 55 yr.) and controls (N=93, mean 55 yr.) between 44 and 66 years of age without hyperlipidemia, the cases had:

Higher HDL3b (19.9 vs. 17.9, p<0.05), HDL3 (58.8 vs. 55.7, p=0.08) and LDLII+IV/HDL2+3 (0.40 vs. 0.38, p=0.11), and

Lower TC (182 vs. 205, p<0.001), LDLC (109 vs. 124, p<0.01), HDLC (44 vs. LDL11A (16.8 vs. 18.2, p=0.09), HDL2b (15.5 vs. 18.6, p<0.05), and HDL2 (41.3 vs. 44.5, p=0.06). These data again indicate that cases may be more aggressively treated with medications than the controls, even though they do not have hyperlipidemia. These data also indicate some important risk factors in the cases: a higher ratio of small LDL to HDL, small LDL size and lower HDL2b.

These data illustrate the value of the cardiovascular informatic knowledge base in deriving heretofore unrecognized relationships between data, especially highly discriminating lipoprotein subfractions, in diagnosing risk factors which may govern the treatment of patients.

Applicant has carefully reviewed the references cited by the Examiner and does not find the slightest suggestion that the subclass data can be used to identify patients without hyperlipidemia who are in need of treatment.

Allowance of claim 37 and claims 22-28 and passage of the case to issue are solicited.

Respectfully submitted,

By:_____
John J. McDonnell
Reg. No. 26,949

McDonnell Boehnen
Hulbert & Berghoff
300 S. Wacker Drive
Chicago, IL 60606

22. (Amended) The cardiovascular healthcare management system of claim ~~36~~ 37 further comprising a physician data access interface to allow physician access to the infomediary databases.

23. (Amended) The cardiovascular healthcare management system of claim ~~36~~ 37 further comprising a communication system allowing the physician to communicate cardiovascular healthcare management information to the patient.

24. (Amended) The cardiovascular healthcare management system of claim ~~36~~ 37 further comprising a cardiovascular knowledge base that stores information related to cardiovascular risk factors.

25. (Amended) The cardiovascular healthcare management system of claim ~~36~~ 37 wherein the diagnostic engine includes algorithms for associating test results with possible treatments.

26. (Amended) The cardiovascular healthcare management system of claim ~~36~~ 37 wherein the diagnostic engine includes algorithms for associating test results with possible diagnoses.

27. (Amended) The cardiovascular healthcare management system of claim ~~36~~ 37 wherein the diagnostic engine includes algorithms for associating diagnosis information with possible treatment plans.

28. (Previously Presented) The cardiovascular healthcare management system of claim 27 wherein the treatment plans include personalized drugs, diet and exercise suggestions.

36. (Cancel) A cardiovascular healthcare management system comprising:

(a) an infomediary site having databases for cardiovascular healthcare management which includes a database of test results of concentration of subclass of LDL and subclass of HDL and LDLC and HDLC cardiovascular patients;

(b) a data entry interface for receiving patient personal data and test results for concentration of subclass of LDL and subclass of HDL and LDLC and HDLC concentration and storing the data and results in the infomediary site databases;

(c) a diagnostic engine for analyzing patient test results for subclass of LDL, subclass of HDL, LDLC and HDLC data and identifying patients with normal LDLC and HDLC values who are in need of treatment.

37. (New) A cardiovascular healthcare management system comprising:

(a) an infomediary site having databases for cardiovascular healthcare management which includes a database of test results of concentration of subclasses of LDL and subclasses of HDL and LDLC and HDLC from cardiovascular patients;

(b) a data entry interface for receiving patient personal data and test results for concentration of subclass of LDL and subclass of HDL and LDLC and HDLC and storing the data and results in the infomediary site databases;

(c) a diagnostic engine for analyzing patient test results for subclasses of LDL, subclasses of HDL, LDLC and HDLC data and identifying patients who do not have hyperlipidemia but are in need of treatment.